



PFG/PFI-X

AI-native European Energy Storage Platform for Grid and Industrial Decarbonisation



Project Idea / Expertise

Development of a next-generation energy storage platform combining:

- advanced battery technology from trusted industrial ecosystems
- intelligent energy management
- grid and industrial applications
- resilient European value chains

Organization name, town and country

IMP PAN, Gdańsk, Poland
STAY-ON Storage Engineering (SOSE), Olsztyn, Poland

Addressed topic(s)/area(s)

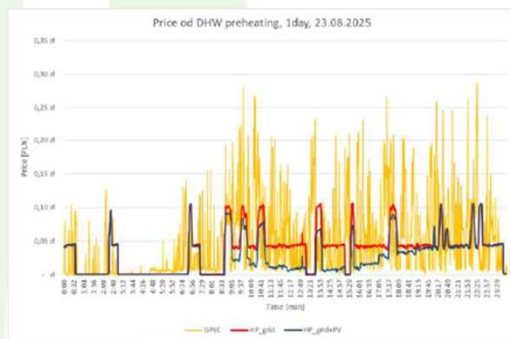
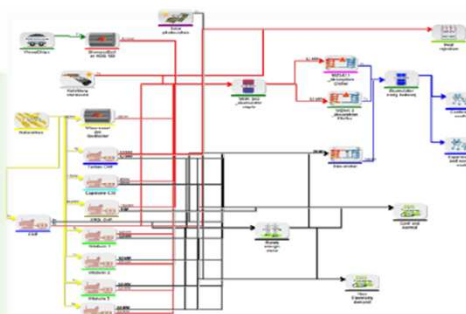
HORIZON-CID-2026-01-02 Clean Technologies for Climate Action
Focus areas:

- Integrated net-zero energy systems
- Energy storage technologies
- Enhanced zero-emission power technologies



IMP PAN and STAY-ON Storage Engineering

Planning and modeling of the energy systems



- STAY-ON Storage Engineering - System Integrator and OEM supplier focused on advanced Battery Energy Storage Systems and Energy Management solutions.
 - SERENE (<https://h2020serene.eu/>)
 - SUSTENANCE (<https://h2020sustenance.eu/>)
 - PARP 1.1.2 - POPW.01.01.02-06-0115/21
- Core technologies and products
 - PFG — Power for Grid
 - PFI — Power for Industry
 - PFB — Power for Business
 - STAY-ON® iEMS with Capabilities:
 - ✓ multi-asset orchestration
 - ✓ predictive maintenance
 - ✓ VPP integration readiness
 - ✓ digital monitoring and diagnostics
 - ✓ AI-driven optimisation
 - ✓ peak shaving and energy arbitrage

STAY-ON
STORAGE ENGINEERING



From isolated energy assets towards intelligent energy ecosystems



AI-native European Energy Storage Platform for Grid and Industrial Decarbonisation

Project vision - **Develop a scalable next-generation energy storage platform supporting rapid industrial deployment.**

- **Advanced storage architecture**

- **next-generation battery technology** – high operation safety, long cycle life, deep discharge capabilities, stable performance
- modular and scalable design
- improved operational flexibility and lifecycle performance

- **Strategic supply-chain resilience**

- diversification of critical technology sources
- reduced dependence on dominant global suppliers
- strengthened European industrial ecosystem

Diversification and resilience of strategic technology supply chains.

- **AI-native operation**

- Digital Twin
- predictive maintenance
- adaptive optimisation algorithms

- **Expected impact**

- reduced LCOE
- increased battery lifetime
- reduced industrial CO₂ emissions
- improved grid flexibility
- strengthened strategic autonomy of European energy technologies
- accelerated deployment of clean technologies



Competences / type of partners sought

- Building a focused industry-led consortium for resilient European energy storage technologies
- **Large-scale battery moduls manufacturer (technology specified, manufacturer – under discussion),**
 - advanced battery module and pack manufacturing
 - large-scale industrialisation capabilities
 - scalable manufacturing processes
- **Technology partners (under discussion)**
 - power electronics local suppliers (under discussion)
 - battery technologies (partner confirmed)
- **Industrial demonstrator hosts (tbd)**
 - energy intensive industries
 - manufacturing plants
 - utility applications
- **Research partners (tbd)**
 - AI and Digital Twin technologies
 - diagnostics
- **Target demonstrators**
 - PFI - 1–2 MW / 2–5 MWh - Industrial decarbonisation and cost optimisation
 - PFG - 5–10 MW / 20–40 MWh - Grid flexibility and renewable integration

Priority expectations:

-  Safety
-  Vitality
-  Low operating costs
-  Aesthetics
-  Simplicity
-  **Intelligence**

Creation of a resilient, diversified and deployment-ready European clean energy ecosystem



Contact details



Contact person

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